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Avatars, agency and mutual gaze: Effects on eye contact, task performance and perceived social presence

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Mutual gaze, or eye contact, is a fundamental aspect of social interaction, and is known to facilitate task performance. It is also believed that mutual gaze is related to social perceptions of one's interlocutor. In order to establish how much looking by one conversational partner at another will maximise the amount of mutual gaze between the pair, users interacted with a programmed agent within Second Life to solve simple arithmetic tasks. This agent was programmed to look at the user during 0%, 33%, 67% or 100% of the interaction, and the amount of mutual gaze between the pair was recorded, along with the task performance measures. In order to manipulate purported agency, prior to the interaction users were either told that the agent they were interacting with was human-controlled (an avatar) or computer-controlled (an agent). Social presence measures were taken, in the form of questionnaires administered during the interaction. The relationship between the amount of mutual gaze, purported agency of the interlocutor and reported social presence was investigated, and the implications for mutual gaze and its relationship to social and task-related measures were discussed.

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